What is claimed is:

[Claim 1] 1. A method of determining the time t_{HOB} to a desired Height Of Burst (HOB) of a projectile comprising the steps of:

a. determining the time t_a that it takes said projectile to reach its apogee after launch; and;

b. calculating the time to the desired time of burse t_{HOB} based upon the t_a.

[Claim 2] 2. The method of claim 1 wherein the calculating step b above comprises setting the t_{HOB} as a percentage X% of t_a wherein said percentage is less than 100% and wherein $t_{HOB} = t_a + X\%t_a$.

[Claim 3] 3. The method of claim 2 wherein said percentage of t_a is calculated as follows:

If $t_a > 12$ seconds then down leg time = 90% of t_a

If 12 sec $> t_a > 9$ seconds then down leg time = 70% of t_a

If 9 sec $> t_a > 7$ seconds then down leg time = 10% of t_a

If $t_a < 7$ seconds then there may be a malfunction and the projectile should be disabled.

[Claim 4] 4. The method of claim 1 wherein said step b is calculated as follows:

$$t_{HOB} = t_a + \sqrt{t_a^2 - 2 \times HOB/g} + C$$

where $g = 9.81\ m/sec^2 = 32.2\ ft/sec^2$

and C = correction factor.

[Claim 5] 5. The method of claim 4 wherein said correction factor C is calculated as follows:

If $t_a > 12$ seconds then C = 1.0 sec

If 12 sec > $t_a > 9$ seconds then C = 0.75 sec

If 9 sec > $t_a > 7$ seconds then C = 0.5 sec

If $t_a < 7$ seconds then there may be a malfunction and the projectile should be disabled.

[Claim 6] 6. The method of claim 1 wherein said determining Step A is performed by a fuse including a turbo alternator to determine t_a.